APPENDIX E

File Code: 2200/2400/2670 **Date:** September 1, 2010
Route To: (RF Reply due Log #383)

Subject: 2010 Implementation Monitoring for PACFIS/INFISH and the 1998 Biological Opinions for Salmon, Steelhead, and Bull Trout

To: Forest Supervisors, Colville, Deschutes, Fremont-Winema, Malheur, Ochoco, Okanogan-Wenatchee, Umatilla, Wallowa-Whitman

REPLY DUE DECEMBER 31, 2010

Region 6 of the Forest Service has made commitments through the PACFISH and INFISH Management Strategies to improve aquatic resources found in the Interior Columbia River Basin. Since the Region began implementing these strategies, and in some cases even before, there has been marked improvement in management of aquatic resources. This effort is recognized and commended.

In order to meet the terms of the 1998 PIBO BiOps, implementation monitoring is required with respect to livestock grazing. It is expected that FS line officers will continue to work with their staffs and grazing permittees to ensure that IM requirements are met for 2010. Compliance with this requirement is being monitored and will be presented to the Deputy Team during their annual review. We greatly appreciate the work that was accomplished throughout the Region in 2009 and look forward to your continuing monitoring efforts for the 2010 grazing season.

As in previous years, the Implementation Monitoring Program will rely on coordination between the Implementation Monitoring Task Team members and Field Unit Coordinators. Field Unit Coordinators are the local point of contact for those aspects of the monitoring program, including training, which are not activity-specific. The Regional counterparts, members of the Interagency Implementation Monitoring Task Team and Field Unit Coordinators are listed in Enclosure 1.

Enclosure 2 of this directive explains the Regional Deputy Team's Monitoring Program requirements under the PACFISH/INFISH Biological Opinions (PIBO) for 2010. Grazing is the only management activity that is required to be reported in 2010.

Data should be entered into the PACFISH/INFISH Implementation Monitoring database by December 31, 2010. Questions about the Implementation Monitoring program should be directed to Dan Fissell at 541-467-5117 or Tom Hilken at 503-808-2822 or your Implementation Monitoring Task Team representative. Questions concerning the purpose for the Implementation Monitoring program or workload questions under the sample scheme should be directed to the region's PACFISH/INFISH Representative, Jose Linares at 503- 808-2955.

/s/ Calvin N. Joyner (for)

MARY WAGNER
Regional Forester

Enclosures:

cc: Jose Linares
Kenneth McDonald

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Scott C Woltering
Deborah L Konnoff
Thomas O Hilken
Dan Fissell

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ENCLOSURE 1.		
2010 Region 6 Field Unit Implementation Monitoring Coordinators		
Forest	**Name**	**Phone**
Wallowa/Whitman	Mitch Bulthuis	541-416-6753
Malheur	Tom Friedrichsen	541-278-3933
Ochoco	Dan Rife	541-383-5534
Colville	Travis Fletcher	509-775-7424
Okanogan/Wenatchee	Christina Bauman	509-486-5112
Umatilla	Kathy Ramsey	541-278-3933
Fremont/Winema	Mike Nevill	541-943-4442
2010 Region 6 Implementation Monitoring Core Team		
Office Represented	**Name**	**Phone**
USFS Region 1	Ann Carlson	406-329-3164
USFS Region 4	Cynthia Tait (co-lead)	801-625-5358
USFS Region 6	Dan Fissell	541-467-5117
	Tom Hilken	503-808-2822
USFS CRB Anadromous Fish Coordinator	Ann Carlson	406-329-3164
BLM ID and BLM MT	Bryce Bohn	208-373-3829
BLM OR/WA	Al Doelker (co-lead)	503-808-6067
NOAA Pacific Northwest	Nancy Munn	503-231-6269
USFWS Region 1	Clay Fletcher	509-378-5256
EPA Region 10	Don Martin	208-665-0458
PIBO EM Coordinator	Eric Archer	435-755-3565
Information Technology Transfer	Kerry Overton	208-373-4357

ENCLOSURE 2

Regional Deputy Team's Monitoring Program requirements under the PACFISH/INFISH Biological Opinions (PIBO) for 2010.

1. Link to Effectiveness Monitoring

PIBO Implementation Monitoring (IM) monitors annual grazing indicators (e.g. stubble height, bank alteration, woody browse) and provides critical input into the PIBO Effectiveness Monitoring (EM) project, which examines the long term effectiveness of livestock grazing management practices in maintaining or restoring riparian and aquatic systems. Field units establish Designated Monitoring Areas (DMAs) on stream reaches where livestock have access and which reflect a typical level of grazing use. The DMAs are the sites where IM is done by the field units, and are also the sites measured every 5 years for EM by the PIBO team. Therefore, first priority is placed on ensuring that the exact locations of DMAs are documented (using UTMs or lat/longs) and monumented (with a fence post or other permanent marker) so that all monitoring teams can measure the site in a consistent and repeatable way (See Enclosure 3-PIBO IM Protocol for Establishing DMAs). It is important that PIBO Field Unit IM Coordinators (Enclosure 1-list of PIBO IM Contacts) work closely with the PIBO EM Team to coordinate the locations of DMA sample sites used in both monitoring efforts.

To evaluate overall trends in stream and riparian area conditions using the information collected by the Effectiveness Monitoring Team at DMAs, it is beneficial to have 2 years of IM data for each site. Units are required to collect and report IM data on sites evaluated by the EM team the year **before** and the year **of** the EM visit. The site condition and data collected at a site the year before the EM visit will influence the site characteristics the following season when EM surveys the site. Having 2 years of livestock use data will strengthen our understanding of overall grazing at a site and ultimately lead to stronger correlations between cause (IM) and effect(EM) data sets because we will have livestock use data for 2 of the 5 years instead of just 1 year.

Enclosure 4 and 5 list for each Forest the established and/or missing DMA sites scheduled for EM/IM monitoring in 2010 and 2011. Several sub-watersheds (6^{th} field Hydraulic Unit Codes (HUCs)) that are grazed still need DMAs to be established by the field units.

2. Monitoring Methods at DMAs

It is important that data the EM team collects at the DMAs reflect the livestock use indicators most important to stream banks and stream channels. Accordingly, the following IM requirements will apply to these DMAs:

- Measurements will be on the greenline (first perennial vegetation above the water's edge)

- Measurements must include, at minimum: (1) bank alteration, (2) stubble height (unless no herbaceous vegetation is present on the greenline, as would be the case in shaded areas), and (3) woody use (browse) along the greenline, assuming that woody vegetation is present and available.

- These measurements will be made using the Multiple Indicators Method (MIM) protocol. The draft 2010 version of MIM is available at the following website: http://www.fs.fed.us/rm/boise/research/techtrans/projects/pacfish_grazingdocs.shtml

3. Compliance/Non-compliance Feedback

The monitoring program was developed to provide field unit line officers with a mechanism for implementing the monitoring requirements of PACFISH, INFISH, and the 1998 Biological Opinions for salmon, steelhead, and bull trout. Line officers are accountable for assuring that all actions they take are consistent with these requirements. A Line Officer's Certification Report (LOCR) will be required for the 2010 grazing season. More information concerning the LOCR will be sent out this fall.

4. Required IM monitoring for 2010

The following monitoring is required for all authorized livestock grazing activities that have been completed during the current year:

- Monitoring at PIBO Effectiveness Monitoring DMAs: Those grazing activities occurring at DMAs within the sub-watersheds (HUCs) selected for monitoring by the EM Team. This includes DMAs in HUCs to be monitored in both 2010 and 2011. DMA access information and photos of each site are available at the following website: http://fswebgstc.gsc.wofs.fed.us/services/datamanagement/pibo/(select 'Implementation Monitoring/Pics_sitemaps'). The PIBO IM program provides critical input to the PIBO EM project; therefore, **first priority** is placed upon the field units to complete PIBO IM at DMAs selected by the EM Team. These DMAs are listed in Enclosure 4.

- Establishing and Monitoring 'Missing' DMAs: For some HUCs that were originally selected by PIBO for monitoring, DMAs were never established by the field units. These are grazed HUCs with PIBO 'integrator' monitoring sites at low gradient portions of the watershed, but that do not have the corresponding implementation monitoring to explain trends in watershed condition. In HUCs where no DMA was established, DMAs must be set up and monitored in 2010 and 2011. These DMAs are listed in Enclosure 5.

- The PACFISH/INFISH rule requiring monitoring of 20 percent of Category I pastures has been discontinued to allow units to focus resources on monitoring at PIBO EM DMAs. However, data from any additional sites the Forest chooses to monitor in PIBO watersheds are extremely valuable for analysis of trends. Please also enter these data into the PIBO IM Web database.

5. Monitoring Pastures with Little or No Livestock Use:

- Temporarily Closed to Grazing: Established DMAs must be sampled (according to the protocol) in areas under temporary closure, such as post-fire rest, rest rotation grazing, or temporary non-use. The effects of rest from grazing needs to be analyzed along with effects of higher grazing intensities to obtain the complete picture of grazing impacts on PACFISH/INFISH watersheds.

- Sheep Use or Physical Barriers: DMAs that were established where there is currently little or no grazing in stream/riparian areas, whether due to use by sheep or physical barriers such as enclosures or canyon rims, should still be monitored.

- Permanently Closed to Grazing: For all DMAs in pastures permanently closed to livestock grazing, sampling is not required.

For the 2010 and 2011 DMAs, download the site descriptions from the PIBO website http://fswebgstc.gsc.wo.fs.fed.us/services/datamanagement/PIBO/ (select 'Implementation Monitoring/Pics_sitemps') and take them to the field as you do the end-of-season IM monitoring this fall. Check the accuracy and appropriateness of these DMA locations, and any discrepancies or issues must be addressed with the EM team prior to April 2011.

Update on the new PIBO IM Web Database: The new database will be tested this summer and should be ready for use by fall 2010. It will have a one-page entry design and will be considerably simpler to use than the previous version. Training (or an instructional document) and contacts for technical help will be provided at a later date. Field units are required to enter all IM data into this database.

Validating IM Monitoring in 2010: This year the PIBO EM team plans to collect IM data at the same sites that FS or BLM units did their IM monitoring in order to validate the accuracy of our sampling efforts. PIBO will select 30-40 DMAs across a variety of geographic areas and field units slated for monitoring in 2010 and 2011. This information will provide valuable insights and a double check on our own agencies monitoring proficiency.

Coordination: If new DMAs are established in 2010, the PIBO EM team will need to receive maps and UTM information prior to the 2011 EM monitoring season, which begins in April. As in previous years, the IM Program will rely on coordination between IM Core Team members and Field Unit Coordinators (local contacts). IM Core Team and Field Unit Coordinators are listed in Enclosure 1.

ENCLOSURE 3

PIBO Implementation Monitoring (IM) Protocol for Establishing Designated Monitoring Areas (DMAs).

I. Selecting the DMA site

For the PACFISH and INFISH Monitoring Program, DMAs should meet the following criteria:

- The site should represent typical livestock use
    - Select a length of stream within the pasture that is representative of use, not an 'average' for the whole stream. For example, if one-fourth of the stream is expected to be grazed and three-fourths not to be used, select a DMA to represent the livestock use in the one-fourth of the stream rather than a site representing an average level of use across the whole stream.
    - Select the DMA assuming that if proper management occurs at the site, the remainder of the pasture or use area will also be managed within requirements. Thus, livestock management that meets endpoint indicator standards at the DMA would result in meeting standards in the remainder of the pasture.
- Once an area is selected that is representative of livestock use along the stream, use the following guidelines to pinpoint the monitoring location:
    - Select a monitoring site that is most critical in influencing listed fish species, (e.g., within spawning habitat, juvenile rearing habitat).
    - The site should be influenced principally by livestock grazing. Avoid areas where impacts to listed fish species are compounded by other activity types (e.g., recreation) or by non-USFS or BLM livestock grazing activities.
    - Select sites where channel conditions have the potential to respond quickly to changes in management. These changes should be measureable. Generally avoid sites that are impervious to disturbance (e.g. rock-armored channels) or those intentionally established for concentrated use (e.g. water gaps). Neither would show quick enough change in response to changes in pasture use and, therefore, would not be useful for adaptive management or Effectiveness Monitoring.

Other Considerations:

No livestock access or use: DMAs must be established in grazed pastures, regardless of amount of livestock use, unless that pasture has been formally removed or unallocated from grazing. Little or no livestock use in stream/riparian areas, whether due to use by sheep, temporary non-use, rest, or physical barriers such as enclosures or canyon rims, is still considered a management strategy, and consequently should be documented through IM. The effects of rest from grazing need to be analyzed **along with** effects of higher grazing intensities to obtain the complete picture of grazing impacts on PACFISH/INFISH watersheds.

Use an ID Team: DMAs, as well as their associated endpoint indicators, are best identified by an interdisciplinary team, including specialists knowledgeable in fish habitat requirements, channel processes, riparian vegetation, and livestock grazing management.

II. Mapping the DMA

- Step 1. Record the UTM coordinates at the downstream end of the reach using GPS. Also record the projection (e.g., NAD27).
- Step 2. Permanently monument the downstream end of the DMA reach using post, marker, rebar, etc.
- Step 3. Take photos looking upstream and downstream at the downstream end of the reach.
- Step 4. Prepare a site map or sketch with distinctive features of the site, or delineate the reach on a high-resolution aerial photograph (e.g., National Agricultural Image Project – NAIP). Write out directions so future workers can find the site.
- Step 5. Using GPS, measure the upstream UTM coordinate on-site (optional, but useful), or record the thalweg distance from the downstream monument to the upstream end.

III. Measuring DMA Indicators

- Step 1. Measure the reach using the same distance used by the PIBO EM Project: 120 meters thalweg length.
- Step 2. Measure IM indicators (e.g., stubble height, bank alteration, woody browse) on both sides of the stream reach.
    - Use an established protocol (e.g., MIM, Interagency Tech Reference, R1 Protocol).

IV. Questions & Answers

- **What if I want to move a DMA site where EM is located due to construction of beaver dams, channel alteration by floods, or because the site is no longer representative of grazing?** If a new DMA location is being considered, consult the PIBO EM coordinator (Eric Archer) or your IM Core Team member before proceeding.

- **What if the reaches which are representative of livestock use do not coincide with any reach that is sensitive with respect to listed fish habitat?** Select the reach that is representative of livestock use.

- **If the watershed does not contain ESA-listed fish, do I still need a DMA?** Implementation monitoring is required in those Category II pasture use areas being monitored by the PIBO EM Project.

- **When do I have to use the IM Database?** All IM data collected at EM Project DMAs must be entered into the IM Database. Data such as PACFISH/INFISH standards and guides compliance, use supervision, spot checks, DMA monitoring results, fence integrity, livestock access evaluations, unauthorized use, and any other kind of implementation monitoring relevant to livestock management of the pasture can be entered into the IM database.

ENCLOSURE 4

LIST OF DMAs TO BE SAMPLED THIS YEAR (2010 and 2011) BY PIBO-EM AND THE FIELD UNITS. All site maps and pictures are available at http://fswebgstc.gsc.wo.fs.fed.us/services/data_management/PIBO/

Sampling Yr	Site Name	HUCNUM6	Stream	Forest	District	UTM Zone	UTME Field	UTMN Field
2010	009-02-K	170200041002	N.F. Scatter	Colville	Republic	11	367068	5379126
2010	153-01-K	170702031001	S.F. Long	Malheur	Blue Mountain	11	343536	4940820
2010	153-02-K	170702031002	Long	Malheur	Blue Mountain	11	345967	4941306
2010	149-02-K	171200020407	Hay	Malheur	Emigrant Creek	11	323897	4865969
2010	149-03-IK	171200010403	Poison	Malheur	Emigrant Creek	11	335515	4851930
2010	149-05-K	171200020706	Stancliffe	Malheur	Emigrant Creek	11	338269	4859148
2010	149-07-K	171200020703	Myrtle	Malheur	Emigrant Creek	11	328759	4860025
2010	149-09-K	171200020704	Myrtle	Malheur	Emigrant Creek	11	330939	4873225
2010	149-10-K	171200020404	Yellowjacket	Malheur	Emigrant Creek	11	317917	4859480
2010	149-11-K	171200020702	Silvies	Malheur	Emigrant Creek	11	336117	4860245
2010	149-12-K	171200020705	Sage Hen	Malheur	Emigrant Creek	11	335842	4863280
2010	007-12-IK	170200061605	Peony	Okanogan	Tonasket	11	337379	5385868
2010	143-03-K	170702021102	Sugarbowl	Umatilla	North Fork John Day	11	335577	5003650
2010	143-04-K	170701032202	Pearson	Umatilla	North Fork John Day	11	360465	5016377
2010	143-05-K	170702021302	Bear Wallow	Umatilla	North Fork John Day	11	362954	5005237
2010	143-07-K	170702021701	S.F. Cable	Umatilla	North Fork John Day	11	364768	4987854
2010	143-09-K	170702021003	No Name trib of N.F. Bridge	Umatilla	North Fork John Day	11	351926	4989547
2010	143-11-K	170702021203	Owens	Umatilla	North Fork John Day	11	356649	5012883
2010	153-04-K	170702022502	Smith	Umatilla	North Fork John Day	11	344613	4980049
2010	153-17-K	170702030302	Indian	Umatilla	North Fork John Day	11	350771	4966972
2010	143-08-K	170702021401	Butcher knife	Umatilla	North Fork John Day	11	366872	4999845
2010	153-03-K	170702022501	Brush	Umatilla	North Fork John Day	11	348771	4974759
2010	132-13-K	170601031101	Lick	Umatilla	Pomeroy	11	468069	5122884
2010	132-16-K	170601031102	Charley	Umatilla	Pomeroy	11	461534	5121546
2010	139-03-K	170502030404	Balm	Wallowa-Whitman	La Grande	11	462526	4978134
2010	139-10-K	170502031802	W.F. Eagle	Wallowa-Whitman	La Grande	11	462218	4992277

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ENCLOSURE 4

LIST OF DMAs TO BE SAMPLED THIS YEAR (2010 and 2011) BY PIBO-EM AND THE FIELD UNITS. All site maps and pictures are available at http://fswebgstc.gsc.wo.fs.fed.us/services/data_management/PIBO/

2010	140-08-K	170601040302	Indian	Wallowa-Whitman	La Grande	11	440901	5025419
2010	140-11-K	170601040802	Little Catherine	Wallowa-Whitman	La Grande	11	447867	5003697
2010	140-12-K	170601040403	Clark	Wallowa-Whitman	La Grande	11	442894	5028741
2010	140-14-K	170601040402	N.F. Clark	Wallowa-Whitman	La Grande	11	442758	5038784
2011	158-10-K	170703040602	Porter	Deschutes & Ochoco	Lookout Mountain	10	732676	4914198
2011	158-01-K	170703040601	Peterson	Deschutes & Ochoco	Lookout Mountain	10	727791	4916834
2011	158-07-K	170703041301	Sherwood	Deschutes & Ochoco	Lookout Mountain	10	701050	4881147
2011	158-09-K	170703040502	Fox Canyon	Deschutes & Ochoco	Lookout Mountain	10	725107	4905209
2011	158-08-K	170703040401	Pine	Deschutes & Ochoco	Lookout Mountain	10	707477	4884025
2011	157-05-K	170703030202	Roba	Deschutes & Ochoco	Paulina	11	263038	4907754
2011	157-08-K	170703040801	Little Summit	Deschutes & Ochoco	Paulina	11	265644	4913394
2011	158-03-K	170703041202	Double Cabin	Deschutes & Ochoco	Paulina	10	715785	4877509
2011	161-01-K	170703011201	Indian Ford	Deschutes & Ochoco	Sisters	10	615850	4911084
2011	155-01-IK	170702011605	Canyon	Malheur	Blue Mountain	11	351636	4898050
2011	155-13-K	170702011604	M.F. Canyon	Malheur	Emigrant Creek	11	356184	4899856
2011	146-06-K	170501161704	Lake	Malheur	Prairie City	11	368670	4895379
2011	146-05-K	170501161707	Summit	Malheur	Prairie City	11	376202	4893619
2011	146-07-K	170501162101	Bear	Malheur	Prairie City	11	395987	4886550

ENCLOSURE 5

LIST OF GRAZED 6TH FIELD HUCs WITH NO ESTABLISHED DMA THAT ARE SCHEDULED FOR SAMPLING BY PIBO-EM IN 2010 and 2011. Each of these HUCs needs to have a DMA established somewhere within the HUC and should be monitored during the fall of 2010 and 2011.

Sampling Yr	Site Name	HUCNUM6	Graze Mgt	Stream	Forest	District
2010	009-05-I	170200040902	Cattle	No Name	Colville	Republic
2010	009-07-I	170200040904	Cattle	N.F. Sanpoil	Colville	Republic

ENCLOSURE 5

LIST OF GRAZED 6TH FIELD HUCs WITH NO ESTABLISHED DMA THAT ARE SCHEDULED FOR SAMPLING BY PIBO-EM IN 2010 and 2011. Each of these HUCs needs to have a DMA established somewhere within the HUC and should be monitored during the fall of 2010 and 2011.

2010	009-10-I	170200041004	Cattle	S.F. O'brien	Colville	Republic
2010	009-17-I	170200041101	Cattle	Thirteenmile	Colville	Republic
2010	165-11-I	170702010402	Cattle	Badger	Deschutes & Ochoco	Lookout Mountain
2010	165-14-I	170702043005	Cattle	Bridge	Deschutes & Ochoco	Lookout Mountain
2010	153-05-I	170702030203	Cattle	Slide	Malheur	Blue Mountain
2010	153-19-I	170702022702	Cattle	Fox	Malheur	Blue Mountain
2010	007-04-I	170200061403	Cattle	Mill	Okanogan	Tonasket
2010	007-05-I	170200060804	Cattle	Chewiliken	Okanogan	Tonasket
2010	007-06-I	170200061606	Cattle	Henderson	Okanogan	Tonasket
2010	007-10-I	170200040603	Cattle	Barnell	Okanogan	Tonasket
2010	009-09-I	170200040704	Cattle	Cape Labelle	Okanogan	Tonasket
2010	009-11-I	170200040705	Cattle	Cobey	Okanogan	Tonasket
2010	009-14-IS	170200040802	Cattle	W.F. Granite	Okanogan	Tonasket
2010	165-09-I	170702042301	Cattle	Wheeler	Umatilla	Heppner
2010	132-01-I	170601031001	Cattle	N.F. Asotin	Umatilla	Pomeroy
2010	132-09-I	170601071902	Cattle	Cummings	Umatilla	Pomeroy
2010	132-19-I	170601071502	Cattle	Pataha	Umatilla	Pomeroy
2010	132-10-I	170601071903	Cattle	Panjab	Umatilla	Walla Walla
2010	139-11-I	170502031703	Cattle	Big	Wallowa-Whitman	La Grande
2010	139-12-IS	170502031803	Cattle	Eagle	Wallowa-Whitman	La Grande
2010	139-05-I	170502032001	Cattle	Summit	Wallowa-Whitman	Pine
2010	139-13-I	170502031901	Cattle	Goose	Wallowa-Whitman	Pine
2011	010-14-I	170200011103	Cattle	N.F. Hall	Colville	Republic
2011	010-01-I	170200011403	Sheep	S.F. Sherman	Colville	Three Rivers
2011	010-02-I	170200011402	Sheep	Canyon	Colville	Three Rivers

ENCLOSURE 5

LIST OF GRAZED 6TH FIELD HUCs WITH NO ESTABLISHED DMA THAT ARE SCHEDULED FOR SAMPLING BY PIBO-EM IN 2010 and 2011. Each of these HUCs needs to have a DMA established somewhere within the HUC and should be monitored during the fall of 2010 and 2011.

2011	010-03-I	170200020203	Cattle	N.F. Boulder	Colville	Three Rivers
2011	010-04-I	170200020302	Cattle	E.F. Deer	Colville	Three Rivers
2011	010-13-I	170200011404	Sheep	Sherman	Colville	Three Rivers
2011	011-04-I	170200020402	Cattle	Deep	Colville	Three Rivers
2011	010-17-I	170200020103	Cattle	Deadman	Colville	Three Rivers
2011	011-03-I	170200011803	Cattle	American Fork Of Big Sheep	Colville	Three Rivers
2011	011-20-I	170200021302	Cattle	Pierre	Colville	Three Rivers
2011	011-19-I	170200012104	Cattle	Rocky	Colville	Three Rivers
2011	011-15-I	170200011702	Cattle	E.F. Crown	Colville	Three Rivers
2011	011-14-I	170200012002	Cattle	Smackout	Colville	Three Rivers
2011	011-13-I	170200012103	Cattle	Meadow	Colville	Three Rivers
2011	161-15-I	170703010601	Cattle	Coyote Springs	Deschutes & Ochoco	Bend-Fort Rock
2011	161-06-I	170703010702	Cattle	Fall	Deschutes & Ochoco	Bend-Fort Rock
2011	158-06-I	170703040701	Cattle	N.F. Crooked	Deschutes & Ochoco	Lookout Mountain
2011	157-04-I	170703030601	Cattle	Begg	Deschutes & Ochoco	Lookout Mountain
2011	157-03-I	170703030502	Cattle	Beaverdam	Deschutes & Ochoco	Paulina
2011	157-15-IS	170703030402	Cattle	Sugar	Deschutes & Ochoco	Paulina
2011	157-10-I	170703030301	Cattle	Wolf	Deschutes & Ochoco	Paulina
2011	157-09-I	170702010502	Cattle	Rock	Deschutes & Ochoco	Paulina
2011	154-09-I	170702030801	Cattle	Camp	Malheur	Blue Mountain
2011	154-07-I	170702030702	Cattle	Bridge	Malheur	Blue Mountain
2011	155-03-I	170702011601	Cattle	Vance	Malheur	Blue Mountain
2011	155-07-I	170702011402	Cattle	Beech	Malheur	Blue Mountain
2011	155-02-I	170702011403	Cattle	E.F. Beech	Malheur	Blue Mountain
2011	154-11-I	170702030403	Cattle	Big Boulder	Malheur	Blue Mountain

ENCLOSURE 5

LIST OF GRAZED 6TH FIELD HUCs WITH NO ESTABLISHED DMA THAT ARE SCHEDULED FOR SAMPLING BY PIBO-EM IN 2010 and 2011. Each of these HUCs needs to have a DMA established somewhere within the HUC and should be monitored during the fall of 2010 and 2011.

2011	154-03-I	170702030503	Cattle	Vinegar	Malheur	Blue Mountain
2011	155-10-IS	170702011603	Cattle	E.F. Canyon	Malheur	Emigrant Creek
2011	155-16-IS	170702011906	Cattle	John Day	Malheur	Prairie City
2011	146-03-I	170501162203	Cattle	Little Malheur	Malheur	Prairie City
2011	154-08-I	170702011903	Cattle	Reynolds	Malheur	Prairie City
2011	154-02-I	170702030604	Cattle	Squaw	Malheur	Prairie City
2011	146-08-I	170501162105	Cattle	Fopian	Malheur	Prairie City
2011	146-02-I	170501162104	Cattle	Crane	Malheur	Prairie City
2011	141-02-I	170701031601	Sheep	E.F. Meacham	Umatilla	Walla Walla
2011	141-08-I	170701031502	Sheep	N.F. Meacham	Umatilla	Walla Walla
2011	141-01-I	170701031501	Sheep	Bear	Umatilla	Walla Walla
2011	134-06-I	170701031302	Sheep	S.F. Umatilla	Umatilla	Walla Walla
2011	134-05-I	170701031201	Sheep	N.F. Umatilla	Umatilla	Walla Walla
2011	134-04-I	170601042201	Sheep	Gordon	Umatilla	Walla Walla
2011	134-01-I	170701031301	Sheep	Thomas	Umatilla	Walla Walla
2011	134-11-I	170601042403	Cattle	Jarboe	Umatilla	Walla Walla
2011	141-04-I	170601041903	Cattle	Fivepoint	Wallowa-Whitman	La Grande
2011	141-05-I	170601041001	Cattle	Little Rock	Wallowa-Whitman	La Grande